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PATENT SPECIFICATION

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PROVISIONAL SPECIFICATION

New and Useful Improvements in the Manufacture of Obstetrical Instruments for Animal and Human Use

We, GEORGE ARTHUR MARSHALL, of 13, Summers Road, Godalming, Surrey, and WILLIAM TORRANCE GALBRAITH, of 6, Lower Manor Road, Godalming, Surrey, both British Subjects, do hereby declare the nature of this invention to be as follows:—

This invention has for its object to provide an improved instrument for use in obstetrical cases both animal and human.

In this type of instrument the dilators for the cervix and forceps are combined in one instrument which hitherto have been two separate instruments nevertheless each is operated independent of one another by distinct handles, each can be separated if it is found to be more expedient, e.g. in the insertion of the cervix dilators, the forceps may be disconnected and withdrawn for insertion of the hand or the dilators may in turn be withdrawn and the forceps left in contact with the foetus if so required.

In practice, the present instruments are found to be detrimental owing to the waste of time, chiefly the dilators interfere with the insertion of the forceps or the hand, owing to the necessity of withdrawal, and the object of this invention is to overcome the said handicap of providing two instruments in one, which in turn may be disconnected and used without the withdrawal in conjunction with any other instrument used in the art of midwifery.

The instrument is connected by a screw

of threaded hollow rods, one working inside the other. In the case of the dilators being needed without the forceps, the forceps are withdrawn by unscrewing the two bottom handles this leaving the dilators ready for use in the same way as the whole instrument was connected up, or if the forceps are needed these may be used by coupling up the handles again. When the instrument is completely coupled it is worked entirely by the services of threaded rods passing one inside the other. By screwing up the handle No. 1, the collar fixed at the end of the threaded rod is drawn into handle No. 1, thus opening the dilators and the reverse action to close them again. In the case of the forceps by turning handle No. 2 these are extended and at the same time opened by the collar connected to another rod, when in position these are contracted by turning handle No. 3 which causes the collar connected to the end of rod to go forward, when the forceps are in position by turning handle No. 1 the dilators are contracted leaving forceps ready for withdrawal. It will be seen that in the employment of the above arrangement, the operator can adapt or adjust the said instrument or instruments to his requirements with the least possible delay and thus any inconvenience is entirely obviated.

Dated this 19th day of February, 1936.
GEORGE ARTHUR MARSHALL.
WILLIAM TORRANCE GALBRAITH.

COMPLETE SPECIFICATION

New and Useful Improvements in the Manufacture of Obstetrical Instruments for Animal and Human Use

We, GEORGE ARTHUR MARSHALL, of 13, Summers Road, Godalming, Surrey, and WILLIAM TORRANCE GALBRAITH, of 6, Lower Manor Road, Godalming, Surrey, both British Subjects, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and

[Price 1/-]

ascertained in and by the following statement:—

This invention has for its object to provide an improved instrument for use in obstetrical cases both animal and human.

According to our invention the dilators for the cervix and forceps are combined

in one instrument which hitherto have been two separate instruments. Nevertheless each is operated independently of one another. The said invention being used in either human or animal obstetric for insertion in the pelvis for the withdrawal of the human infant or animal foetus as the case may be.

The instruments in common use consist of forceps in one case and dilators in the other both forming separate units. Often it is necessary to use both instruments and delay is caused in having to extract one and insert the other. In this invention both these instruments are combined therefore avoiding the delay and unnecessary suffering to the human or animal.

The invention consists of dilators which are inserted in the pelvis cavity for the purpose of expanding same and insertion of forceps. By the use of this invention forceps can now be inserted without withdrawal of dilators, when forceps are in position dilators can be contracted and the human or animal foetus can now be withdrawn in the usual manner.

The dilators consist of two or more blades which may be used as found convenient, the forceps consist of two curved blades shaped to conform with the shape of the human or animal pelvis.

The instrument is connected by a series of threaded rods, one working inside the other as shown in the accompanying drawing.

A, B, C being threaded rods,
D, G, J collars,

40 F dilators,
K forceps.

A being a thread hollow rod with a collar E attached for the purpose of expanding dilators F adjusted to requirements by handle D. B is another threaded hollow rod working inside A and is attached to forceps K, which are worked by handle G. C is a threaded rod working inside B with a collar H
50 attached for the purpose of opening for-

ceps K by the adjustment of handle J.

When the instrument is completely coupled it is worked entirely by threaded rods A, B, C passing one inside the other. By turning handle D the collar E fixed at the end of rod A is drawn towards D thus opening dilators F and the reverse action to close them. In the case of the forceps K by turning handle G these are extended and at the same time opened by collar H connected to rod C. When the forceps are in position they are contracted by turning handle J which causes collar H to go forward, by this action correct adjustment can be obtained. When the forceps are in position, by turning handle D the dilators are contracted leaving forceps ready for withdrawal.

In the case of forceps and dilators being needed as two separate instruments remove handle G and J, withdraw rods B and C this will leave dilators ready for use. Then by screwing on handles G and J to respective rods which have been slipped one inside the other, forceps are ready for separate use.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. An obstetrical instrument in which dilators and forceps are combined one externally to the other, and are so arranged that they can be operated as one instrument or can be separated and used as two separate instruments. The parts being operated by nuts or handles engaging threaded rods passing one inside the other to open or close the dilators and forceps as well as extending the latter as in the manner described.

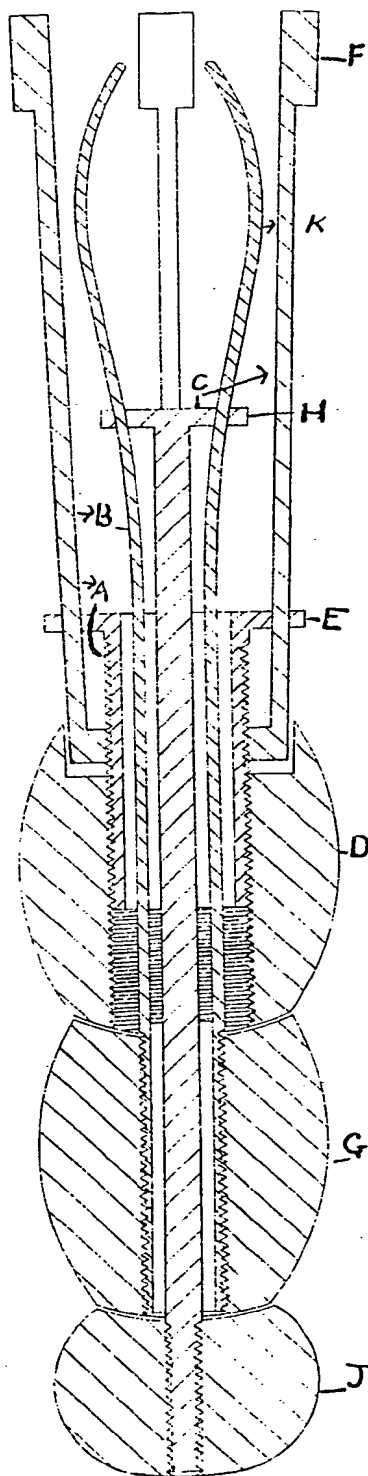
2. A dual obstetrical instrument consisting of dilators and forceps for animal or human use substantially as described.

Dated this 1st day of December, 1936.

G. A. MARSHALL,
W. T. GALBRAITH.

Leamington Spa: Printed for His Majesty's Stationery Office, by the Courier Press.—1937.

[This Drawing is a reproduction of the Original on a reduced scale.]



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